

**DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **HUMAN TELOMERASE CATALYTIC SUBUNIT**: the specification of which: \_\_\_ is attached hereto or X was filed on November 19, 1997 as Application No. 08/974,549 and was amended on \_\_\_\_\_ (if applicable).

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

**Prior Foreign Application(s)**

Country	Application No.	Date of Filing	Priority Claimed Under 35 USC 119
PCT	PCT/US97/17885	October 1, 1997	Yes <u>X</u> No _
PCT	PCT/US97/17618	October 1, 1997	Yes <u>X</u> No _

I hereby claim the benefit under Title 35, United States Code §119(e) of any United States provisional application(s) listed below:

Application No.	Filing Date

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Date of Filing	Status
08/915,503	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/912,951	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/911,312	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/854,050	May 9, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/851,843	May 6, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/846,017	April 25, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/844,419	April 19, 1996	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/724,643	October 1, 1996	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

William M. Smith, Reg. No. 30,223  
 Randolph T. Apple, Reg. No. 36,429  
 Joe Liebeschuetz, Reg. No. 37,505  
 Greg P. Einhorn, Reg. No. 38,440  
 Kevin Kaster, Reg. No. 32,704  
 David Lentini, Reg. No. 33,944


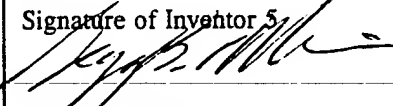
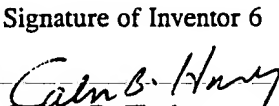
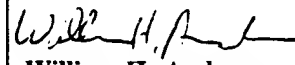
Send Correspondence to: <b>William M. Smith</b> <b>TOWNSEND and TOWNSEND and CREW LLP</b> <b>Two Embarcadero Center, 8th Floor</b> <b>San Francisco, CA 94111-3834</b>	Direct Telephone Calls to: (Name, Reg. No., Telephone No.)  <b>Name: William M. Smith</b> <b>Reg. No.: 30,223</b> <b>Telephone: (415) 576-0200</b>
--	---

Full Name of Inventor 1	Last Name <b>Cech</b>	First Name <b>Thomas</b>	Middle Name or Initial <b>R.</b>	
Residence & Citizenship	City <b>Boulder</b>	State/Foreign Country <b>Colorado</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>1545 Rockmont Circle</b>	City <b>Boulder</b>	State/Country <b>Colorado</b>	Zip Code <b>80303</b>
Full Name of Inventor 2	Last Name <b>Lingner</b>	First Name <b>Jachim</b>	Middle Name or Initial	

Residence & Citizenship	City <b>Boulder</b>	State/Foreign Country <b>Colorado</b>	Country of Citizenship <b>Switzerland</b>	
Post Office Address	Post Office Address <b>360 30th Street</b>	City <b>Boulder</b>	State/Country <b>Colorado</b>	Zip Code <b>80303</b>
Full Name of Inventor 3	Last Name <b>Nakamura</b>	First Name <b>Toru</b>	Middle Name or Initial	
Residence & Citizenship	City <b>Boulder</b>	State/Foreign Country <b>Colorado</b>	Country of Citizenship <b>Japan</b>	
Post Office Address	Post Office Address <b>4940 Thunderbird Circle #204</b>	City <b>Boulder</b>	State/Country <b>Colorado</b>	Zip Code <b>80303</b>
Full Name of Inventor 4	Last Name <b>Chapman</b>	First Name <b>Karen</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Sausalito</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>71 Cloud View Road</b>	City <b>Sausalito</b>	State/Country <b>California</b>	Zip Code <b>94965</b>

Full Name of Inventor 5	Last Name <b>Morin</b>	First Name <b>Gregg</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Palo Alto</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>3407 Janice Way</b>	City <b>Palo Alto</b>	State/Country <b>California</b>	Zip Code <b>94303</b>
Full Name of Inventor 6	Last Name <b>Harley</b>	First Name <b>Calvin</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Palo Alto</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>Canada</b>	
Post Office Address	Post Office Address <b>1730 University Avenue</b>	City <b>Palo Alto</b>	State/Country <b>California</b>	Zip Code <b>94301</b>
Full Name of Inventor 7	Last Name <b>Andrews</b>	First Name <b>William</b>	Middle Name or Initial <b>H.</b>	
Residence & Citizenship	City <b>Richmond</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>6102 Park Avenue</b>	City <b>Richmond</b>	State/Country <b>California</b>	Zip Code <b>94805</b>

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1 <b>Thomas R. Cech</b>	Signature of Inventor 2 <b>Joachim Lingner</b>	Signature of Inventor 3 <b>Toru Nakamura</b>
Date	Date	Date
Signature of Inventor 4  <b>Karen B. Chapman</b>	Signature of Inventor 5  <b>Gregg B. Morin</b>	Signature of Inventor 6  <b>Calvin B. Harley</b>
Date <b>5/11/98</b>	Date <b>5/18/98</b>	Date <b>May 13, 1998</b>
Signature of Inventor 7  <b>William H. Andrews</b>		
Date <b>4/8/98</b>		

**DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **HUMAN TELOMERASE CATALYTIC SUBUNIT**: the specification of which: \_\_\_\_ is attached hereto or X was filed on November 19, 1997 as Application No. 08/974,549 and was amended on \_\_\_\_\_ (if applicable).

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

**Prior Foreign Application(s)**

Country	Application No.	Date of Filing	Priority Claimed Under 35 USC 119
PCT	PCT/US97/17885	October 1, 1997	Yes <u>X</u> No _
PCT	PCT/US97/17618	October 1, 1997	Yes <u>X</u> No _

I hereby claim the benefit under Title 35, United States Code §119(e) of any United States provisional application(s) listed below:

Application No.	Filing Date

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Date of Filing	Status
08/915,503	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/912,951	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/911,312	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/854,050	May 9, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/851,843	May 6, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/846,017	April 25, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/844,419	April 19, 1996	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/724,643	October 1, 1996	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

William M. Smith, Reg. No. 30,223  
 Randolph T. Apple, Reg. No. 36,429  
 Joe Liebeschuetz, Reg. No. 37,505  
 Greg P. Einhorn, Reg. No. 38,440  
 Kevin Kaster, Reg. No. 32,704  
 David Lentini, Reg. No. 33,944

Send Correspondence to: <b>William M. Smith</b> <b>TOWNSEND and TOWNSEND and CREW LLP</b> <b>Two Embarcadero Center, 8th Floor</b> <b>San Francisco, CA 94111-3834</b>	Direct Telephone Calls to: (Name, Reg. No., Telephone No.)  <b>Name: William M. Smith</b> <b>Reg. No.: 30,223</b> <b>Telephone: (415) 576-0200</b>
--	---

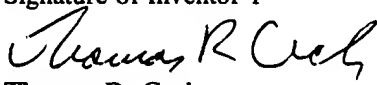
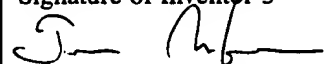
Full Name of Inventor 1	Last Name Cech	First Name Thomas	Middle Name or Initial R.	
Residence & Citizenship	City Boulder	State/Foreign Country Colorado	Country of Citizenship United States	
Post Office Address	Post Office Address 1545 Rockmont Circle	City Boulder	State/Country Col rad	Zip Code 80303
Full Name of Inventor 2	Last Name Lingner	First Name J achim	Middle Name or Initial	

Residence & Citizenship	City <b>Boulder</b>	State/Foreign Country <b>Colorado</b>	Country of Citizenship <b>Switzerland</b>	
Post Office Address	Post Office Address <b>360 30th Street</b>	City <b>Boulder</b>	State/Country <b>Colorado</b>	Zip Code <b>80303</b>
Full Name of Inventor 3	Last Name <b>Nakamura</b>	First Name <b>Toru</b>	Middle Name or Initial	
Residence & Citizenship	City <b>Boulder</b>	State/Foreign Country <b>Colorado</b>	Country of Citizenship <b>Japan</b>	
Post Office Address	Post Office Address <b>4940 Thunderbird Circle #204</b>	City <b>Boulder</b>	State/Country <b>Colorado</b>	Zip Code <b>80303</b>
Full Name of Inventor 4	Last Name <b>Chapman</b>	First Name <b>Karen</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Sausalito</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>71 Cloud View Road</b>	City <b>Sausalito</b>	State/Country <b>California</b>	Zip Code <b>94965</b>

65207" 6052

Full Name of Inventor 5	Last Name <b>Morin</b>	First Name <b>Gregg</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Palo Alto</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>3407 Janice Way</b>	City <b>Palo Alto</b>	State/Country <b>California</b>	Zip Code <b>94303</b>
Full Name of Inventor 6	Last Name <b>Harley</b>	First Name <b>Calvin</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Palo Alto</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>Canada</b>	
Post Office Address	Post Office Address <b>1730 University Avenue</b>	City <b>Palo Alto</b>	State/Country <b>California</b>	Zip Code <b>94301</b>
Full Name of Inventor 7	Last Name <b>Andrews</b>	First Name <b>William</b>	Middle Name or Initial <b>H.</b>	
Residence & Citizenship	City <b>Richmond</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>6102 Park Avenue</b>	City <b>Richmond</b>	State/Country <b>California</b>	Zip Code <b>94805</b>

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1  <b>Thomas R. Cech</b>	Signature of Inventor 2  <b>Joachim Lingner</b>	Signature of Inventor 3  <b>Toru Nakamura</b>
Date <b>3-31-98</b>	Date	Date <b>3/31/98</b>
Signature of Inventor 4  <b>Karen B. Chapman</b>	Signature of Inventor 5  <b>Gregg B. Morin</b>	Signature of Inventor 6  <b>Calvin B. Harley</b>
Date	Date	Date
Signature of Inventor 7  <b>William H. Andrews</b>		
Date		



**DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **HUMAN TELOMERASE CATALYTIC SUBUNIT**: the specification of which: \_\_\_\_ is attached hereto or X was filed on November 19, 1997 as Application No. 08/974,549 and was amended on \_\_\_\_\_ (if applicable).

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

**Prior Foreign Application(s)**

Country	Application No.	Date of Filing	Priority Claimed Under 35 USC 119
PCT	PCT/US97/17885	October 1, 1997	Yes <u>X</u> No _
PCT	PCT/US97/17618	October 1, 1997	Yes <u>X</u> No _

I hereby claim the benefit under Title 35, United States Code §119(e) of any United States provisional application(s) listed below:

Application No.	Filing Date

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application No.	Date of Filing	Status
08/915,503	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/912,951	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/911,312	August 14, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/854,050	May 9, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/851,843	May 6, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/846,017	April 25, 1997	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/844,419	April 19, 1996	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned
08/724,643	October 1, 1996	<input type="checkbox"/> Patented <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Abandoned

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

William M. Smith, Reg. No. 30,223  
 Randolph T. Apple, Reg. No. 36,429  
 Joe Liebeschuetz, Reg. No. 37,505  
 Greg P. Einhorn, Reg. No. 38,440  
 Kevin Kaster, Reg. No. 32,704  
 David Lentini, Reg. No. 33,944

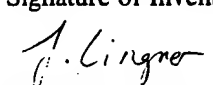
Send Correspondence to: <b>William M. Smith</b> <b>TOWNSEND and TOWNSEND and CREW LLP</b> <b>Two Embarcadero Center, 8th Floor</b> <b>San Francisco, CA 94111-3834</b>	Direct Telephone Calls to: (Name, Reg. No., Telephone No.)  <b>Name: William M. Smith</b> <b>Reg. No.: 30,223</b> <b>Telephone: (415) 576-0200</b>
--	---

Full Name of Inventor 1	Last Name Cech	First Name Thomas	Middle Name or Initial R.	
Residence & Citizenship	City Boulder	State/Foreign Country Colorad	Country of Citizenship United States	
Post Office Address	Post Office Address 1545 Rockmont Circle	City Boulder	State/Country Colorado	Zip Code 80303

Full Name of Inventor 2	Last Name <b>Lingner</b>	First Name <b>Joachim</b>	Middle Name or Initial	
Residence & Citizenship	City <b>1066 Epalinges</b>	State/Foreign Country <b>Switzerland</b>	Country of Citizenship <b>Switzerland</b>	
Post Office Address	Post Office Address <b>Place de la Croix-Blanche 25</b>	City <b>1066 Epalinges</b>	State/Country <b>Switzerland</b>	Zip Code
Full Name of Inventor 3	Last Name <b>Nakamura</b>	First Name <b>Toru</b>	Middle Name or Initial	
Residence & Citizenship	City <b>Boulder</b>	State/Foreign Country <b>Colorado</b>	Country of Citizenship <b>Japan</b>	
Post Office Address	Post Office Address <b>4940 Thunderbird Circle #204</b>	City <b>Boulder</b>	State/Country <b>Colorado</b>	Zip Code <b>80303</b>
Full Name of Inventor 4	Last Name <b>Chapman</b>	First Name <b>Karen</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Sausalito</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>71 Cloud View Road</b>	City <b>Sausalito</b>	State/Country <b>California</b>	Zip Code <b>94965</b>

Full Name of Inventor 5	Last Name <b>Morin</b>	First Name <b>Gregg</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Palo Alto</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>3407 Janice Way</b>	City <b>Palo Alto</b>	State/Country <b>California</b>	Zip Code <b>94303</b>
Full Name of Inventor 6	Last Name <b>Harley</b>	First Name <b>Calvin</b>	Middle Name or Initial <b>B.</b>	
Residence & Citizenship	City <b>Palo Alto</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>Canada</b>	
Post Office Address	Post Office Address <b>1730 University Avenue</b>	City <b>Palo Alto</b>	State/Country <b>California</b>	Zip Code <b>94301</b>
Full Name of Inventor 7	Last Name <b>Andrews</b>	First Name <b>William</b>	Middle Name or Initial <b>H.</b>	
Residence & Citizenship	City <b>Richmond</b>	State/Foreign Country <b>California</b>	Country of Citizenship <b>United States</b>	
Post Office Address	Post Office Address <b>6102 Park Avenue</b>	City <b>Richmond</b>	State/Country <b>California</b>	Zip Code <b>94805</b>

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature of Inventor 1  <b>Thomas R. Cech</b>	Signature of Inventor 2   <b>Joachim Lingner</b>	Signature of Inventor 3  <b>Toru Nakamura</b>
Date	Date <b>3/16/98</b>	Date
Signature of Inventor 4  <b>Karen B. Chapman</b>	Signature of Inventor 5  <b>Gregg B. Morin</b>	Signature of Inventor 6  <b>Calvin B. Harley</b>
Date	Date	Date
Signature of Inventor 7  <b>William H. Andrews</b>		
Date		